

Low Energy and PhotoEmission Electron Microscopy

A short course within the LEEM PEEM 12 International Conference



Short Course organized during the 12th International LEEM PEEM Conference
September 28th-October 2nd, 2020.
Córdoba, Spain

<https://leempeem12.secv.es/>

International LEEM PEEM Conference:

- Main forum for scientists & instrument developers to share the latest results and instrumental advances in Low Energy Electron Microscopy (LEEM), PhotoEmission Electron Microscopy (PEEM), and related techniques
 - Every two years, rotating Europe-America-Asia
 - 1st time in Spain in 2020
- Effort to attract young scientists: reduced fee for students, PhD prize, poster prize, tutorials, grants

Some of the scientific topics covered in the conference:

- Nanomagnetism
- Surface dynamics
- Heterogeneous catalysis
- Two-dimensional materials
 - Multiferroics
- Organic/inorganic interfaces
 - Instrumentation

September 28th (1 day): short course in order to present an **overview of the possibilities of LEEM and PEEM**, including their combination with synchrotron X-rays for the study of complex surfaces and nanostructures.

Target audience: **PhD students and young scientists new to the field.**

Expected participants: 40 - 50

Language: English

Two expert experimental scientists will teach details of operation of the techniques, state of the art instrumentation, and hottest research trends.

Two PhD students will share their approach to image acquisition and processing.

Ample discussion time and a coffee break will be provided to stimulate active interaction between lectures and participants.

Student mixer in the evening.

All course participants are expected to stay for the full conference.

BUDGET

PRELIMINARY BUDGET:

Expense	Cost (€)	Count	TOTAL (€)
28/09/2020			
Coffee, Snacks before tutorial	12	50	600
Room (Tutorials)	200	1	200
Students mixer	20	50	1000
Lecturer travel grants	800	2	1600
Lecturer accommodation (2 nights each)	150	4	600
Discount for 20 undergraduate students	50	20	1000
			5000
Income	Cost (€)	Count	TOTAL (€)
28/09/2020			
LEEM PEEM <u>Conf</u> contribution	4000	1	4000
IUVSTA contribution	1000	1	1000
			5000
NET			0

Thanks for your attention!

Local Organizing Committee:

LUCÍA ABALLE, ALBA Synchrotron - Conference Chair

JUAN DE LA FIGUERA, Instituto de Química-Física Rocasolano-CSIC

MICHAEL FOERSTER, ALBA Synchrotron

ADRIÁN QUESADA, Instituto de Cerámica y Vidrio – CSIC

MIGUEL ÁNGEL NIÑO, IMDEA Nanociencia

JOSÉ EMILIO PRIETO, Instituto de Química-Física Rocasolano-CSIC

CARLOS PÉREZ, Universidad de Córdoba

FRANCISCO ROMERO, Universidad de Córdoba

Program

- Tutorial 1: Low Energy Electron Microscopy (LEEM), Spin Polarized LEEM. Vectorial magnetometry of magnetic structures.

Lecturer: Dr. Gong Chen, Lawrence Berkeley National Laboratory (USA)

- Tutorial 2: X-Ray PhotoEmission Electron Microscopy (XPEEM) SpectroMicroscopy. Electronic structure of 2D.

Lecturer: Dr. Onur T. Mentès, Elettra-Sincrotrone Trieste (Italy)

- Tutorial 3: Image acquisition and processing

Lecturers: Pascal Dreher, University of Duisburg-Essen (Germany) & Tobias de Jong, Leiden University (Netherlands)

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